

REMARKS

In the outstanding Office Action, the Examiner: (i) objects to claim 11 due to alleged informality; (ii) rejects claims 1 and 11 under 35 U.S.C. §112, second paragraph due to alleged indefiniteness; and (iii) rejects claims 1-4, 6-16 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over Tang et al., “A 1.2 V, 1.8 GHz CMOS Two-Stage LNA with Common-Gate Amplifier as An Input Stage,) IEEE, Oct. 2003 (hereinafter “Tang) in view of U.S. Patent No. 6,166,599 to Aparin et al. (hereinafter “Aparin”).

In this response, Applicant: (i) amends claim 11 to address the alleged informality; (ii) traverses the §112, second paragraph, rejections for at least the following reasons; and (iii) traverses the §103(a) rejections for at least the following reasons.

Regarding the objection to claim 11, Applicant has amended the claim to remove any potential confusion regarding what is meant by the second stage. Withdrawal of the objection is respectfully requested.

Regarding the §112, second paragraph, rejection of claim 1, Applicant traverses such rejection since FIG. 2 of the present application clearly illustrates that T2, T3 and T6 are series transmission lines. There is no doubt that one ordinarily skilled in the art, after reviewing FIG. 2, would understand what is being referred to as a series transmission line. Withdrawal of the rejection is respectfully requested.

Regarding the §112, second paragraph, rejection of claim 11, Applicant traverses such rejection since page 7, line 26, through page 8, line 4, and FIG. 7, of the present application fully support the notion of the current associated with the second stage (e.g., in FIG. 2, the second stage is a degenerated cascode including Q2 and Q3) being adjustable. One of ordinary skill in the art, after reviewing FIG. 2 and FIG. 7, would no doubt realize how to adjust the second stage current. Withdrawal of the rejection is respectfully requested.

Regarding the §103(a) rejection, the combination of Tang and Aparin fails to disclose each and every limitation of the claimed invention, and there is no motivation to modify either Tang or Aparin to attain the claimed invention.

The present invention, for example, as recited in amended independent claim 1, recites an amplifier comprising a first amplifying stage comprising a common-base transistor, a second amplifying stage, coupled to the first amplifying stage, comprising a cascode transistor pair, and at

least one matching network comprising a series transmission line and a shunt stub. Independent claims 12, 19 and 20 recite certain similar limitations.

First, the Tang/Aparin combination fails to disclose a first amplifying stage comprising a common-base transistor, as claimed. The Examiner points to the first stage of FIG. 1 of Tang. However, FIG. 1 of Tang only illustrates a common-source topology (FIG. 1(a)) and a common-source topology (FIG. 1(b)). There is no disclosure in Tang or Aparin of the a first amplifying stage comprising a common-base transistor, as in the claimed invention.

Furthermore, the Tang/Aparin combination fails to disclose at least one matching network comprising a series transmission line and a shunt stub, as claimed. The Examiner points to microstrip lines 412 and 416 in FIG. 4 of Aparin. However, these components do not function as the claimed matching network comprising a series transmission line and a shunt stub. The two circuit arrangements are different and operate in different ways.

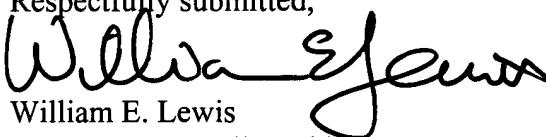
Still further, one ordinarily skilled in the art would find no motivation to modify Tang or Aparin to attain the claimed invention. The Examiner's statement at page 3 that one would substitute a matching network from Aparin with a matching network of Tang fails to appreciate that Tang and Aparin address two disparate circuit configurations.

For at least the above reasons, Applicant asserts that independent claims 1, 12, 19 and 20 are patentable over the Tang/Aparin combination.

Also, it is asserted that the claims that directly or indirectly depend from independent claims 1 and 12 are patentable over the cited combination, not only due to their respective dependence from claims 1 or 12, but also because such claims recite patentable subject matter in their own right.

In view of the above, Applicants believe that claims 1-4, 6-16 and 18-20 are in condition for allowance, and respectfully request withdrawal of the §112 and §103(a) rejections.

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Respectfully submitted,

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